CVPIA Activities

The Central Valley Project Improvement Act (CVPIA), implemented in October 1992, mandates changes in management of the Central Valley Project, particularly for the protection, restoration, and enhancement of fish and wildlife. The following pages describe activities related to the CVPIA that occurred during 2000, and progess made toward achieving the program's goals.

The CVPIA's purpose includes protecting, restoring, and enhancing fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California. It also addresses improving the CVP's operational flexibility, increasing use of water transfers and water conservation, and contributing to protection of the San Francisco Bay-Delta.

Anadromous Fish Restoration Program

Striped bass, one of the anadromous fish that live in California's waters, are one of the species benefitting from the program.

Section 3406(b)(1) of the Central Valley Project Improvement Act (CVPIA) is commonly referred to as the Anadromous Fish Restoration Program (AFRP). The legislation directs the Secretary of the Interior to develop and implement a program which makes all reasonable efforts to ensure that by 2002 natural production of anadromous fish (including Chinook salmon, steelhead trout, green sturgeon, white sturgeon, American shad, and striped bass) in the rivers and streams of California's Central Valley (excluding only the San Joaquin River from Friant Dam to the Mendota Pool) will be sustainable on a long-term basis at levels not less than twice the average levels attained during the period of 1967-1991. This language has been adopted as the AFRP goal.

The legislation specifies the AFRP's first priority will be measures that protect and restore natural channel and riparian habitat values through habitat restoration actions, modifications to Central Valley Project (CVP) operations, and implementation of the measures mandated in Section 3406(b)(1). The program will be reviewed and updated every 5 years and shall describe how the Secretary intends to operate the CVP to meet the restoration goals and requirements in the CVPIA. The AFRP has identified the following six objectives that must be met to achieve the program's goal:

- Improve habitat for all life stages of anadromous fish through provision of flows of suitable quality, quantity, and timing, and improved physical habitat.
- Improve survival rates of anadromous fish by reducing or eliminating entrainment of juvenile anadromous fish at water diversion facilities.
- Improve the opportunity for adult fish to reach their spawning habitats in a timely manner.
- Collect fish population, health, and habitat data to facilitate evaluation of restoration actions.
- Integrate habitat restoration efforts with harvest and hatchery management.

- Involve partners in the implementation and evaluation of restoration actions.

A total of $6,755,000 was expended on the AFRP in 2000, and the following projects were completed:

- **Acquisition of Simmons Ranch on Big Chico Creek.** The acquisition totals 2,700 acres of pristine riparian corridor habitat bordering about 2.5 miles along the north bank of Big Chico Creek, located at the upper boundary and adjacent to Bidwell Park in Chico, Calif. Big Chico Creek is a high-priority watershed which supports spring-run Chinook salmon.
- **Completion of Phase I of the Sanborn Slough bifurcation structure on Butte Creek**. This action replaces the deteriorated culverts and spillway with a modern structure that ensures adequate fish passage and enhances water control at the split between the two waterways. The new structure will have a state-of-the-art fish ladder, flow-control devices, and associated measuring gates. The fish ladder will enhance passage of salmon and steelhead by reducing delay and injury to the fish, which have difficulty passing through the present gated culverts. The flow-control devices will ensure delivery of dedicated fish flows down Butte Creek and delivery of additional water to over 10,000 acres of critical wetland habitat, including the Butte Sink National Wildlife Refuge and Butte Sink Wildlife Management Area.

Riparian areas along river banks help provide essential habitat for migrating salmon.

- **Restoration of in-channel habitat at the Ratzlaff Reach on the Merced River.** This provides essential habitat for Chinook salmon, and the action will enhance survival of salmon as they migrate through the Ratzlaff Ranch-reach of the river.
- **Establishment of a riparian conservation easement and initiation of restoration of the Grayson River Ranch on the Tuolumne River.** This provides essential habitat for Chinook salmon, and the action will enhance survival of salmon as they migrate through the Grayson River Ranch-reach of the river.
- In addition, a wide variety of planning, research, habitat restoration, and monitoring efforts were continued throughout the Central Valley in the mainstem Sacramento and San Joaquin Rivers and their tributaries. These actions support the six objectives listed above.

For additional information, contact the Division of Environmental Affairs at 916/978-5522 (TDD 916/978-5608).

Water Fact

The CVP Improvement Act, passed in 1992, established an Anadromous Fish Restoration Program to boost production of fish that migrate between fresh and salt water. The temperature control device installed at Shasta Dam in 1997 provides cold water releases for winter-run salmon protection.

Anadromous Fish Screen Program

Reclamation built the Rancho Esquon fish screen during 2000 on Butte Creek in northern California as part of the AFSP.

Under Section 3406(b)(21) of the Central Valley Project Improvement Act, the Secretary of the Interior is required to develop and implement measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin Rivers, their tributaries, the Delta, and the Suisun Marsh. Since 1994, Reclamation and the U.S. Fish and Wildlife Service have been assisting the State of California through the Anadromous Fish Screen Program (AFSP) to install fish screens on unscreened diversions in the Central Valley.

To date, a total of 16 fish screening projects have been completed with cost-share funds from the AFSP. These fish screening projects prevent the entrainment of fish from an estimated 2,472 cubic feet per second of water which is being diverted for agricultural programs.

For additional information, contact the Division of Resources Management at 916/978-5200 (TDD 916/978-5608).

One of 65 national fish hatcheries, Coleman is the nation's largest Chinook salmon hatchery. Fish culture operations began in 1943 at Coleman, which was built to help mitigate for critical salmon and steelhead habitat lost as a result of the construction of Shasta Dam.

Coleman National Fish Hatchery

The CVPIA set provisions requiring the rehabilitation and expansion of the Coleman National Fish Hatchery on Battle Creek in northern California's Shasta County. Although it is 58 years old, the hatchery is a large, modern, state-of-the-art facility due to ongoing rehabilitation. It continues to meet its production goals as described in the U.S. Fish and Wildlife Service's 1998 Biological Assessment, and facility upgrades and improvements continue as planned.

In 2000, the hatchery achieved its objective to ozonate 30,000 gallons per minute of water, and a positive effect was seen on station operations. The juvenile broodyear 1999 fall Chinook salmon were released in April 2000 with no incidence of viral diseases experienced during their entire rearing cycle (for the first time in the hatchery's history). Additionally, improved water quality resulting from the sand filtration capabilities resulted in more fish reaching their proper size prior to release than had previously been possible.

Late in fiscal year 2000, the following projects were awarded: 1) a seismic retrofit of the hatchery building to meet California Zone 2 seismic requirements, 2) a contract to provide detailed station piping and valving drawings to facilitate facility operations, and 3) National Environmental Policy Act initial and advanced design development for the water intake modification project.

For additional information, contact the Northern California Area Office at 530/275-1554 (TDD 530/275-8991).

Comprehensive Assessment and Monitoring Program (CAMP)

Section 3406(b)(16) of the Central Valley Project Improvement Act (CVPIA) is commonly referred to as the Comprehensive Assessment and Monitoring Program (CAMP). The legislation directs the Secretary of the Interior to establish, in cooperation with independent entities and the State of California, a comprehensive assessment program to monitor fish and wildlife resources in California's Central Valley.

Steelhead trout spawning in a northern California stream.

The goals of CAMP are to assess the overall effectiveness of actions implemented pursuant to meeting the production targets of CVPIA Section 3406(b)(1), the Anadromous Fish Restoration Plan, and to assess the relative effectiveness of four categories of CVPIA actions (water management modifications, structural modifications, habitat restoration, and fish screens).

The CAMP Implementation Plan was completed in 1997. It recommended implementation of adult anadromous fish monitoring programs to calculate annual production estimates for each of the six target species: Chinook salmon, steelhead trout, green sturgeon, white sturgeon, American shad, and striped bass. The plan also recommended implementation of juvenile anadromous fish monitoring programs, assessment techniques for evaluating the results of the monitoring programs, and a data management system for the data collected in CAMP. A total of $869,000 was expended on CAMP activities in 2000, and the following actions were completed:

- A data management program, with Internet access to all of the CAMP data, was continued.
- The angler survey (to determine the number of adult anadromous fish returning to the various streams to spawn) and the rotary screw trap survey (to assess the importance of the above four categories of CVPIA actions) were conducted.
- The third annual CAMP report, which describes 1999 data, was drafted and distributed for review in December 2000. The report included data from the angler survey and the rotary screw trap operations that were conducted.
- A long-term hatchery Marking Plan Constant Fractional proposal was completed in summer 2000. The concept would help determine a more accurate estimate of the abundance of wild versus hatchery-produced salmon.
- A project to evaluate the success of fish screening was implemented.

For additional information, contact the Division of Environmental Affairs at 916/978-5522 (TDD 916/978-5608).

CAMP's overall goals are to assess the overall effectiveness of actions implemented pursuant to meeting the production targets of the Anadromous Fish Restoration Plan, and to assess the relative effectiveness of four categories of the Central Valley Project Improvement Act.

Habitat Restoration Program

The 1992 Central Valley Project Improvement Act (CVPIA), Section 3406(b)(1) "Other," authorized the Habitat Restoration Program to protect, restore, and mitigate past fish and wildlife impacts on the Central Valley Project (CVP) not otherwise addressed by the CVPIA. The goals of the Habitat Restoration Program are to:

• Protect and restore native habitats impacted by the CVP that are not specifically addressed in the Fish and Wildlife Restoration Activities section of the CVPIA. These habitats include riparian, aquatic, alkali desert scrub, wetlands (including vernal pools), foothill chaparral, valley-foothill hardwood, and grassland.

• Stabilize and improve populations of native species impacted by the CVP that are not specif-ically addressed in the Fish and Wildlife Restoration Activities section of the CVPIA. Initial focus is given to Federally- or State-listed, proposed or candidate species, or species of concern.

Riparian habitat along the Sacramento River was funded in 2000 as part of this program.

Eleven conservation activities were funded in 2000 at a cost of $3,250,000. Five acquisitions, totaling approximately 2,500 acres, were funded to protect native habitat from future development. These acquisitions, distributed throughout the Central Valley, will protect vernal pools, alkali sinks, gabbro soil chaparral, and riparian habitats and their associated Federally-listed and other native wildlife species. Funding was provided for the restoration of an additional 80 acres of riparian habitat along the Sacramento River.

Surveys on the giant garter snake and yellow-billed cuckoo were funded to provide important information regarding distribution and habitat requirements of these species. This data will be valuable in developing management plans for areas where the species occur.

For additional information, contact the Division of Environmental Affairs at 916/978-5522 (TDD 916/978-5608).

Land Retirement Program

The Central Valley Project Improvement Act, Section 3408(h), authorized the Land Retirement Program to purchase land from willing sellers which would, if permanently retired from irrigation, improve water conservation efforts or improve the quality of the irrigation district's agricultural wastewater. In 2000, the Land Retirement Program focused on two aspects: the acquisition of lands for the 5-year, 15,000-acre Demonstration Project and the establishment and monitoring of experimental plots on 800 acres.

In the project area near Alpaugh, California (approximately 50 miles south of Fresno), 2,646 acres were acquired with the Central Valley Project Conservation Program contributing in partnership to the acquisition of 455 of those acres.

The Phase 1 Environmental Site Assessments for approximately 5,500 acres of additional agricultural properties were accomplished. Acquisition of 3,500 acres was anticipated to close by March 2001. An Interagency Agreement between Reclamation and the Bureau of Land Management (BLM), the managing agency of the Alpaugh area, was developed and implemented that will allow BLM to directly acquire up to 8,000 acres for this part of the Demonstration Project.

The Fresno County portion of the Demonstration Project initiated the study of the effects of large-scale retirement of agricultural lands characterized by high selenium and salinity levels in soils and shallow groundwater. Experimental plots on twenty 40-acre plots were established and monitored. The initial results from baseline data were published in the first Annual Monitoring Report (May 2000). Results indicated only trace amounts of selenium in plants and low levels in mammals and arthropods. Groundwater levels tended to decrease by about 2 feet.

For additional information, contact the South-Central California Area Office at 559/487-5116 (TDD 559/487-5933).

Red Bluff Diversion Dam Fish Passage Program (8)

The Red Bluff Diversion Dam is a 52-foot-high concrete gated weir structure located on the Sacramento River about 2 miles southeast of Red Bluff, California. The dam was built between 1962 and 1964 to divert water from the Sacramento River to the Corning and Tehama-Colusa Canals, thus providing irrigation water to parts of the Sacramento Valley. However, because the dam blocks the Sacramento River, it interferes with endangered winter-run Chinook salmon as they attempt to move upstream to their spawning grounds.

Aerial view of the Red Bluff Diversion Dam on the Sacramento River.

In an effort to minimize the fish passage problems, Reclamation implemented an 8-month “gates out” operation at the dam on September 15, 1994. Each year on September 15, the dam’s gates are raised until May 15 of the following year. During this “gates out” period, water cannot be diverted by gravity to the Tehama-Colusa and Corning Canals. While this change in operations has significantly mitigated the fish passage problem at the dam, it severely limits the ability of the Tehama-Colusa Canal Authority (TCCA) to deliver a sufficient water supply to their contract users.

Reclamation and the TCCA, working with other Federal, State, and local agencies and stakeholders, are co-lead agencies for the National Environmental Policy Act/California Environmental Quality Act (NEPA/CEQA) process to develop alternative plans to increase the delivery of irrigation water during the “gates out” period.

Mid-Pacific Region

In The News

The San Joaquin Record

July 10, 2000

Drainage Dilemma Still Not Settled -- New Studies Planned on Disposing Polluted Agricultural Wastewater . . .

In 2000, the TCCA received funding from Reclamation and a grant from the CALFED Bay-Delta Program and took the lead to provide the resources for the planning, project management, and public involvement efforts.

A Preliminary Scoping Report was completed which identifies three potentially viable alternatives for solving the fish passage problem and providing sufficient water supply. Also completed was a Schematic Design Report describing the facility options that would potentially fulfill the fish passage and pumping requirements for each of the three alternatives identified in the Preliminary Scoping Report. In addition, NEPA/CEQA activities were initiated to include several stakeholder meetings and two public scoping meetings. Construction is scheduled to begin in 2002 and be completed in late 2005.

For additional information, contact the Northern California Area Office at 530/275-1554 (TDD 530/275-8991).

Water Fact

The Central Valley Project provides about 5 million acre-feet of water for farms -- enough to irrigate about 3 million acres, or approximately one-third of the agricultural land in California.

San Joaquin River Riparian Habitat Restoration Program

Riparian habitat along the San Joaquin River in the Central Valley.

The 1992 Central Valley Project Improvement Act, Section 3406 (b)(1) "Other," is the authority under which the San Joaquin River Riparian Habitat Restoration Program (SJRRHRP) was developed in 1997. Through the program, Reclamation, the U.S. Fish and Wildlife Service (FWS), the Friant Water Users Authority, the Natural Resources Defense Council (NRDC), and the Pacific Coast Federation of Fishermen's Association pursue restoration activities along the San Joaquin River.

In 2000, the SJRRHRP launched a website (http://www.mp.usbr.gov/cvpia/sjr/index.html) to provide access to program information. The SJRRHRP supported the National Park Service's Rivers, Trails, and Conservation Assistance Program by funding a public outreach plan to further riparian restoration along the San Joaquin River between the City of Firebaugh and the Mendota Pool. The SJRRHRP worked with the Department of Water Resources (DWR) to identify the locations, condition, and extent of areas with native riparian plants; investigate the survivorship of recently established riparian plants; evaluate the age class distribution of the riparian forest; identify the locations and extent of non-native, invasive plant species; and evaluate the potential for natural establishment and survivorship of native riparian vegetation under existing hydrological conditions.

Other activities included working with GIS to document areas with differing

levels of restoration potential for a variety of conditions and actions; developing a hydraulic and sediment continuity model for the San Joaquin River between Friant Dam and the Merced River; and developing an initial shallow groundwater model of the riparian zone.

Additional accomplishments in 2000 included partnering with private landowners to clean up a crossing on the San Joaquin River between the towns of Mendota and Kerman; 43 tons of household garbage and appliances and over 250 tires were removed. A grant was awarded to the San Joaquin River Parkway and Conservation Trust for restoration planning on the 300-acre Milburn/Hansen Unit adjacent to Fresno. This work is being conducted in close coordination with the California Department of Fish and Game, DWR, the Friant/NRDC Coalition, and FWS.

The SJRRHRP also funded and managed the design, environmental compliance, and physical and biological parameter monitoring and permitting for the 2000 Pilot Project. This project provided maintenance flows (water purchased by the Friant/NRDC Coalition) released from Friant Dam from July through September 2000 to maintain 1998 and 1999 riparian tree species seedlings and provided for data gathering for surface and groundwater interactions.

For additional information, contact the South-Central California Area Office at 559/487-5116 (TDD 559/487-5933).

Spawning Gravel/Riparian Habitat

Northern California Area Office employees used bulldozers to push spawning gravel into the Sacramento River just south of Redding. River currents naturally distributed the gravel.

Section 3406(b)(13) of the Central Valley Project Improvement Act (CVPIA) directs the Secretary of the Interior to develop and implement a continuing program to restore and replenish, as needed, spawning gravel lost due to the construction and operation of Central Valley Project facilities and projects. The legislation specifies that preventive measures shall be implemented to avoid further losses of instream and riparian habitat.

The focus of the actions to date has been on the placement of spawning gravel for steelhead and/or salmon in the Upper Sacramento River from Keswick Dam to the Red Bluff Diversion Dam, in the American River downstream from Nimbus Dam, and in the Stanislaus River downstream from Goodwin Dam. A total of $887,000 was expended on spawning gravel replacement activities in 2000, and the following activities were completed:

<u>Upper Sacramento River:</u>

- 9,000 tons of salmon spawning gravel was placed on the right bank of the river a few hundred yards downriver from Keswick Dam.

Water Fact

In normal precipitation years, the Central Valley Project stores and distributes about 20 percent of the State's developed water.

"Fish have been observed spawning in the gravel placed in both the American and the Stanislaus Rivers."

• 23,000 tons of salmon spawning gravel was placed on the left bank of the river in the vicinity of Redding at the Tobiasson Ranch site.
• The downstream movement of the placed gravel was monitored by tracking individual rocks imbedded with sonic tags.

American River:

• The salmon spawning gravel manipulation and replacement activities carried out in September 1999 were monitored.

Stanislaus River:

• 1,000 tons of salmon spawning gravel was deposited in the river by helicopter at a site immediately downriver from Goodwin Dam in September 2000.
• 300 tons of gravel was pushed into the river in September 2000 several hundred yards downriver from the above site.

Fish have been observed spawning in the gravel placed in both the American and Stanislaus Rivers. In both cases, river reaches that formerly supported spawning salmon had been denuded of the gravel and consequently had not supported spawning for at least 12 years.

For additional information, contact the Division of Environmental Affairs at 916/978-5522 (TDD 916/978-5608).

Trinity River Restoration (2)

Early efforts to dislodge decomposed granite from spawning gravel near Lewiston as part of the Trinity River Restoration Program.

On the Trinity River in northern California, Reclamation is working with many groups to restore and maintain a healthy ecosystem. The Trinity River flows for 110 miles out of the Salmon-Trinity Mountains to join the Klamath River about 41 river miles from the Pacific Ocean.

Reclamation's role is to manage the Trinity River Division to deliver water for farms and cities, restore the fishery, and protect our Tribal Trust assets. To do this, Reclamation administers a program that takes a comprehensive approach to restoring fish and wildlife in the Trinity Basin. Many Federal and State agencies, local entities, special interest groups, and Native American Tribes participate in this process.

The Trinity River Restoration Program was established in 1984 to restore and maintain the fish and wildlife stocks of the Trinity River Basin to the levels which existed just prior to the construction of the Central Valley Project's Trinity River Division (which is located about 50 miles west of Redding, Calif., and stores water to divert to the Sacramento River Basin). This development changed the riverflow – high spring flows no longer roared down the Trinity River – and the salmon and steelhead declined to such a degree that some are now listed as threatened.

In The News

The San Francisco Chronicle

December 20, 2000

Sacramento River Basin To Get Less Trinity Flow: Utility says U.S. move will raise energy prices in a decision that could exacerbate the volatile market for California electricity . . .

Before European settlements, the Trinity River produced an abundance of anadromous fish such as Chinook and Coho salmon and steelhead that spawn in rivers and live in oceans. The Hoopa Valley and Yurok Tribes have always relied on these fisheries for food and income. The Trinity River Restoration Program has modernized a fish hatchery and projects on the mainstem and tributaries have increased fish habitat.

The final piece of the puzzle – flows to the Trinity River – has been brought to conclusion. The Trinity Flow Environmental Impact Statement/Environmental Impact Report has been a 6-year effort that culminated in the U.S. Fish and Wildlife Service's Trinity Flow Study. The preferred alternative recommends increasing the annual flows in the river from approximately 25 to 50 percent of the annual inflow volume at the Trinity Reservoir. Work is continuing in the restoration program in the areas of providing funding for harvest management, watershed stabilization, and fishery monitoring.

For additional information, contact the Northern California Area Office at 530/ 275-1554 (TDD 530/275-8991).

Tracy Fish Test Facility (16)

The Tracy Fish Test Facility

Section 3406(b)(4) of the CVPIA mandates a program to mitigate for fishery impacts associated with the operation of the Tracy Pumping Plant in the south Bay-Delta.

The Mid-Pacific Region is constructing a Tracy Fish Test Facility (TFTF) on the site of the existing Tracy Fish Collection Facility (TFCF) about 2.5 miles northeast of the Tracy Pumping Plant near Tracy, Calif. The TFTF will develop new technologies to divert and collect fish before they reach the pumps without threatening contracted water deliveries through the Pumping Plant. The operation of the new TFTF will not effect the operation of the Tracy Pumping Plant or the TFCF. Reclamation will continue to operate the Tracy Pumping Plant in the same manner with the same export levels, rates, and timing, and no additional take of listed species will occur.

Reclamation is conducting model studies and experiments at our Technical Service Center in Denver, Colorado, and is working with the University of California Davis to develop and fund laboratory studies to refine the design of the TFTF. Draft specifications and drawings are being reviewed by a technical team, and the Environmental Assessment/Initial Study is expected to be finalized in February 2001. The contract award for the TFTF is expected in May 2001.

For additional information, contact the Division of Resources Management at 916/978-5200 (TDD 916/978-5608).

"The Tracy Fish Test Facility will develop new technologies to divert and collect fish before they reach the pumps without threatening contracted water deliveries through the Pumping Plant."

Water Fact

The Sacramento-San Joaquin Bay-Delta serves as the Central Valley Project transfer point. At its southern end, the Tracy Pumping Plant, completed in 1951, uses six large pumps to lift water 197 feet up into the Delta-Mendota Canal. It provides crop irrigation water to the west side of the San Joaquin Valley.

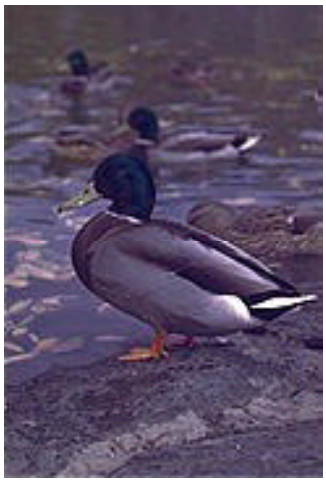
Vernalis Adaptive Management Program Fisheries Study

The Vernalis Adaptive Management Program (VAMP) is a scientifically-based adaptive fishery management plan that is helping to determine the relationships between water flows, exports, and other factors on fish survival in the Delta. Reclamation, in cooperation with the U.S. Fish and Wildlife Service, is buying water to meet fish friendly flow targets on tributaries of the San Joaquin River. The San Joaquin River Group Authority and its members made the releases in 2000 totaling 122,000 acre-feet of water to meet the target flows on the Merced, Lower San Joaquin, Tuolumne, and Stanislaus Rivers.

For additional information, contact the Division of Resources Management at 916/978-5200 (TDD 916/978-5608).

Water Acquisition Program

The CVPIA directs that Reclamation, in coordination with the U.S. Fish and Wildlife Service, acquire water to provide Level 4 water supplies (optimum management levels) for wildlife refuges in the San Joaquin Valley. The Level 4 water supplies enhance and maintain wetland habitats at the refuges for the benefit of migratory and wetland-dependent wildlife. During 2000, we purchased 61,000 acre-feet of water from willing sellers to meet Level 4 refuge water requirements.



Mallard ducks will benefit from the Water Acquisition Program

The Level 4 water is needed by the wetlands to provide better water quality, improve habitat diversity, and provide a longer winter flooding period. This could improve conditions for breeding ducks, improve brooding ponds, and increase the feeding areas and food production. All of these uses result in improved habitat conditions and an increase in the survival rate of migratory waterfowl.

For additional information, contact the Division of Resources Management at 916/978-5200 (TDD 916/978-5608).

Water Conservation

The Central Valley Project Improvement Act (CVPIA), Section 3405(e), establishes criteria for evaluating Water Conservation Plans, and in 2000, 10 Water Management Plans were reviewed and met this criteria. A new 5-year technical assistance agreement was executed with the Irrigation, Training, and Research Center (ITRC) at Polytechnic State University at San Luis Obispo. Through this agreement, the ITRC will continue to provide short courses and in-field technical assistance to Reclamation's agricultural water contractors in the Region.

The Water Conservation Field Services Program provides assistance to participating water districts in the areas of Water Management Planning, Conservation, Education, Demonstration of Innovative Technologies, and Implementation of Conservation Measures. In 2000, the Mid-Pacific Regional Conservation Team provided oversight of the Field Services Program which provided $1.8 million to participating districts with $1.45 million in cost-share funding provided by participants.

In 2000, the Conservation Team coordinated its activities with CALFED's Water Use Efficiency Program and the Urban and Agricultural Water Management Councils, and developed a Water Management Planner to assist Reclamation water service contractors in preparing and implementing water management plans. The Planner includes a newly-developed interactive district water balance program that can be used by the contractors to assess the impacts from implementing best water management practices in the district.

For additional information, contact the Division of Resources Management at 916/978-5200 (TDD 916/978-5608).

Water Transfers

During 2000, a total of 536,000 acre-feet of Central Valley Project (CVP) water was transferred under the CVPIA. Of this amount, 91,000 acre-feet was transferred north of the Delta and 445,000 acre-feet was transferred south of the Delta. These transfers helped ensure the needs of the CVP and its users were met.

The Water Transfers Team assisted CALFED in establishing the ONTAP Website at http://ontap.ca.gov to streamline the application and approval of water transfers by Reclamation, the Department of Water Resources, and the State Water Resources Control Board. The ONTAP Website also functions as an informational clearinghouse to facilitate water transfers.

For additional information, contact the Division of Resources Management at 916/978-5200 (TDD 916/978-5608).

Wetlands Water Supply Investigations

Section 3406 (d)(6) A,B of the Central Valley Project Improvement Act (CVPIA) requires that the Secretary of the Interior, in consultation with the State of California and the Central Valley Habitat Joint Venture, investigate and report on:

- Alternative means of improving the reliability and quality of water supplies currently available to privately-owned wetlands in the Central Valley of California and the need, if any, for additional supplies.
- Water supply and delivery requirements necessary to permit full habitat development for water-dependent wildlife on 120,000 acres of supplemental wetlands, as well as feasible means of meeting associated water supply requirements.

The Mid-Pacific Region provided a Program Manager to work with the U.S. Fish and Wildlife Service on this multi-year study which culminated in the completion of the final report in December 2000. The report will serve as a valuable resource

Water Fact

Hundreds of thousands of California agriculture-related jobs depend on Reclamation-provided water. Those jobs include farmers, pickers, truck drivers, warehouse workers, advertisers, store clerks, and many, many others. In fact, agriculture supports about one in 10 California jobs.

document for agencies and organizations wishing to participate in wetlands conservation activities in the Central Valley.

For additional information, contact the Division of Environmental Affairs at 916/978-5522 (TDD 916/978-5608).

Wildlife Conservation Program

The Wildlife Conservation Program was developed during the Endangered Species Act Section 7(1)(a) consultation process to ensure that the existing operation of the Central Valley Project (CVP), implementation of the Central Valley Project Improvement Act (CVPIA), and renewal of CVP water service contracts would not jeopardize listed or proposed species or adversely affect designated or proposed critical habitat.

The primary goal of the Wildlife Conservation Program is to implement an aggressive adaptive management program that will protect, restore, and enhance special-status species and their habitats in areas directly or indirectly affected by the CVP.

Ten conservation activities were funded in 2000 at a cost of $2,133,000. Eight acquisitions, primarily conservation easements of approximately 12,350 acres, were funded to protect habitat from future development. These acquisitions will protect alkali scrub, vernal pools/grassland complex, wetlands and riparian habitat, and associated Federally- and State-listed and other native species. Funding was also provided to continue riparian brush rabbit and riparian woodrat surveys and genetic studies, and to initiate planning for the captive reproduction of riparian brush rabbit.

Geese fly over wetlands like those protected by the Wildlife Conservation Program.

For additional information, contact the Division of Environmental Affairs at 916/978-5522 (TDD 916/978-5608).